

Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal

Established Under Act No.13 of 1998

Ordinance No 4(B)

Section 40(1)

Ordinance for Bachelor of Engineering 4 year Degree Programme

(For the candidates admitted in 1st year on and after July 2015)

(Under Choice Based Credit System (CBCS) applicable on and after July 2015

(Approved on 28 Nov. 2015)

1.0 The Bachelor of Engineering shall be a four years (eight semesters) programme.

2.0 ADMISSION

2.1 Admission to four years (eight semesters) degree programme shall take place on the basis of Gazette notification issued by Government of Madhya Pradesh from time to time.

3.0 STRUCTURE OF BACHELOR OF ENGINEERING (BE) PROGRAMME

3.1 For the award of degree in any branch of four years degree programme, a student has to earn a minimum of 180 credits.

3.2 There shall be at least fourteen weeks of teaching in every semester.

3.3 The curriculum and syllabi of each programme (such as electrical engineering, mechanical engineering etc.) shall be notified by the University from time to time after due consultation process.

3.4 The structure of UG programme shall consist of the following: Foundation Courses (Basic Sciences, Engineering Arts & Sciences, Humanities, and Social Science & Management), Departmental Core, Departmental Electives and Open Category Electives distributed over eight semesters, with two semesters per academic year. The credit distribution under different categories is given below in table 1.

Table 1 Category-wise range of assigned credits

Categories of Courses	Assigned Range for Credits	
Basic Science Core:	15-20	45-60
Engineering Arts & Sciences Core:	15-20	
Humanities & Social Science Core:	15-20	
Departmental Core including major project work of 8 credits:	70-84	70-84
Departmental Electives:	20-30	20-30
Open Electives:	20-30	20-30
TOTAL	180	

- 3.4.1 **Foundation Core Courses:** comprises courses belonging to Basic Science, Engineering Arts & Sciences and Humanities, Social Science & Management Core groups. These courses shall be specified by the university from time to time for different disciplines/departments, and are essential for an undergraduate degree.
- 3.4.2 **Departmental Core Courses:** comprises courses introducing the student to the fundamentals, applications, advances and projects in the relevant branch of Engineering. These courses shall be decided by the University from time to time.
- 3.4.3 **Departmental Elective Courses:** Each Department shall offer a basket of courses covering different areas and facets of that department to enable student to choose courses.
- 3.4.4 **Open Category Courses:** Each Department shall offer a basket of courses either individually or jointly with other department comprising a number of courses which shall be taken by student under different categories. Courses offer under this category shall not be open to students of the department.
- 3.5 **Course Description:** Course description shall consists of:
- i. Course Code
 - ii. Title of the Course
 - iii. Credits in the form of L-T-P
 - iv. Course Objective, its Outcome and References
 - v. Pre-requisites, co-requisites if any,
 - vi. Syllabi
 - vii. Reference books if any
- 3.6 **Course Credit Assignment:** Every Course comprises of specific Lecture-Tutorial-Practical (L-T-P) Schedule. Credits are assigned to each course as per the following:
Lecture and tutorial of *one hour* each is assigned *one credit*.
Practical of *two hours* each is assigned *one credit*.
For example: a theory course with a **L-T-P** schedule of **2-1-0** will be assigned **3 credits**; a laboratory practical course with a **L-T-P** schedule of **0-0-2** will be assigned **1 credit**.

- 3.7 A candidate can register for a minimum of *16 credits* and maximum of *26 credits* per semester.
- 3.8 The medium of instruction, examination and project reports will be in English.

4.0 FACULTY ADVISOR

- 4.1 HOD of each department will assign a faculty member to the newly admitted class comprising of 60 students as faculty advisor who shall remain attached with the same class till they pass out the programme. Faculty advisor shall help students to make choice of the courses before registration as per University Ordinances, and enable student receive support and services required for him to complete the programme.
- 4.2 College/ Institute shall provide record of the students for which he is a faculty advisor for enabling him to discharge his duties in a meaningful manner.
- 4.3 Registration form of the candidate shall be signed by the faculty advisor.

5.0 REGISTRATION

- 5.1 Registration is a very important procedural part of the academic system. The registration procedure ensures that the student's name is on the roll list of each course that he/she wants to study. No credit shall be assigned if the student attends a course for which he/she is not registered.
- 5.2 Registration for the various courses shall remain open for a period of ten days.
- 5.3 Registration of the courses to be opted by students would be done for in each semester as per the academic calendar notified by the University.
- 5.4 Late registration with a fee of `100/- will be permitted for a period upto seven days from the day of completion of the initial registration process (5.2).
- 5.5 Any student who is not registering will be considered as if he/she has withdrawn from the course on his/her own choice.
- 5.6 A student may drop a course within first *three-weeks* in consultation with the faculty advisor.

- 5.7 Those students who have completed 130 credits upto 5th semester may go upto 208 credits by taking additional courses in the subsequent semesters. The extra credits taken by the students in a particular stream specifying the field of his/her choice. Such candidates shall be awarded a minor specialization while a student earns *minimum of 200 credits*.

6.0 Minimum Credit Threshold

- 6.1 Students depending on their pace of learning may decide the time and duration of their degree.
- 6.2 At the end of each semester, students performance will be monitored by the following criteria as mentioned in Table 2. A student can move to the next level (i.e. Year) after earning the minimum credits, if he/she fails to earn the minimum credit threshold limit then he/she has to re-register again in next academic year.

Table 2 Minimum Credit Threshold

Check Point	Minimum Credit Threshold
At the end of First Year	22
At the end of Second Year	46
At the end of Third Year	70
At the end of Fourth Year	94

- 6.3 If a student fails to earn 22 credits at the end of second semester as stated above, he/she will get a chance to restart first/second semester again however he/she can carryover the previously earned credits.
- 6.4 If students after 8th semester are short by 8 credits will be permitted to register for the same number of credits in the summer at a place to be decided by the University to enable him to complete the degree in the specified period.

7.0 BRANCH UPGRADATION

- 7.1 The branch up-gradation will be considered only at the end of the first year. The performance based on merit during the first year will be the basis for consideration for change of branch.

- 7.2 All students who have successfully completed the first year of the course will be eligible for consideration for branch up gradation, subject to the availability of vacancies in that particular branch. Under no circumstances, the total intake cannot exceed the sanctioned intake by AICTE in that particular branch excluding fee waiving scheme.

8.0 ATTENDANCE REQUIREMENTS

- 8.1 All students must attend every lecture, tutorial and practical class. However, to account for late registration, sickness or other such contingencies, the attendance requirement will be a minimum of 75 % of the classes. Condonation shall be as per the examination general Ordinance number 12. He can be condoned to 10% and a further 5% by the principal of the college and Vice-Chancellor of the University, respectively for satisfactory reasons.
- 8.2 Attendance record will be maintained based upon roll calls (or any equivalent operation) in every scheduled lecture, tutorial and practical class. The course coordinator will maintain and consolidate attendance record for the course (lectures, tutorials and practicals together, as applicable). Head of the Institute shall be responsible for maintaining the attendance records for the courses run by the institute.

9.0 EXAMINATIONS

- 9.1 There will be one University Examination at the end of each semester. These examinations will be designated as follows:
- (a) During First Year**
First Semester B.E., Exam, Second Semester B.E., Exam
- (b) During Second Year**
Third semester B.E. Exam, Fourth semester B.E. Exam
- (c) During Third Year**
Fifth semester B.E. Exam, Sixth semester B.E. Exam
- (d) During fourth Year**
Seventh semester B.E. Exam, Eighth semester B.E. Exam
- 9.2 The semester examination will generally be held in Dec.-Jan. and May- June in each year.

- 9.3 **Earning Credits:** At the end of every semester, a letter grade is awarded in each course for which the student is registered. On obtaining pass grade, the student accumulates the course credits as earned credits.
- 9.4 **Major Project Evaluation:** At the completion of a major project, the student will submit a project report which will be evaluated by a panel of duly appointed Internal and external examiners.
- 9.5 A student shall be continuously evaluated for his / her academic performance in a subject through tutorial work, practical, home assignment, mid-semester test, field work, seminars, quizzes, end-semester examinations and regularity, as proposed by respective Board of Studies from time to time.

10 AWARD OF CREDITS/ GRADES

- 10.1 In each semester, the institute will be required to conduct two mid semester tests with a provision of one extra make-up test for theory.
- 10.2 Each student, registered for a non-examination course, shall be awarded grade by the concerned faculty for the specific course. The grades shall be awarded on the basis of student's performance in various quiz/ assignments/ laboratory work/ class work/ mid-semester tests.
- 10.3 University from time to time may instruct the Institutes to adopt Gaussian curve to optimize their process of evaluation.
- 10.4 The distribution of weightage /marks for examination based courses shall be as mentioned below:

Theory Block			Practical Block	
i	Quiz/Assignments	10%	Lab work and performance, quiz/ Assignments	80%
ii	Minor test	30%	End – semester examination	20%
iii	End-Semester Examination	60%		
	Total	100%	Total	100%

- 10.5 A Unified Practical Examination (online) for all the practical's mentioned in respective scheme except the major project will be conducted by the University on a notified date before/after

the end semester theory examinations. The questions for this online examination will be drawn from the experiment's working principles and their procedures, data collection and its interpretation and results achieved during experimentation.

10.6 Major project viva-voce examination will be conducted by a panel of duly appointed Internal and external examiners by the University.

10.7 Letter Grade and Grade Point System

Each student, registered for a course, shall be awarded grade by the concerned faculty / faculties for the specific subject/paper. The grades awarded to a student shall depend upon his continuous evaluation through performance in various examinations, assignments, quizzes, laboratory work, class work, minor test and regularity. The grades to be used and their numerical equivalents are mentioned in Table -3.

Table-3 Credit Based Grading System

Grade	%Marks range (based on absolute marks system)	Grade Point	Description of performance
A+	91-100	10	Outstanding
A	81-90	9	Excellent
B+	71-80	8	Very Good
B	61-70	7	Good
C+	51-60	6	Average
C	41-50	5	Satisfactory
D	31-40	4	Marginal
F	30 & below	0	Fail
I		0	Incomplete.
W		0	Withdrawal

10.8 Semester Grade Points Average (SGPA) and Cumulative Grade Point Average (CGPA) shall be calculated as under: -

$$SGPA = \frac{\sum_{i=1}^n c_i p_i}{\sum_{i=1}^n c_i}$$

Where c_i is the number of credits offered in the i^{th} subject of a Semester for which SGPA is to be calculated, p_i is the corresponding grade point earned in the i^{th} subject, where $i = 1,2,3 \dots n$, are the number of subjects in that semester.

$$CGPA = \frac{\sum_{j=1}^m SG_j NC_j}{\sum_{j=1}^m NC_j}$$

Where NC_j is the number of total credits offered in the j^{th} semester, SG_j is the SGPA earned in the j^{th} semester, where $j = 1, 2, 3, \dots, m$ are the number of semesters in that course.

11 CONDONATION OF DEFICIENCY

- 11.1 Deficiency up to three marks can be condoned in any one of the subject (theory or practical) to the best of the advantage of the student for passing the examinations. The deficiency can be condoned in not more than two subjects (theory and practical of the same subject shall be considered as two separate subjects, for the purpose of awarding grace).
- 11.2 A candidate securing minimum passing grades in all theory and practical papers but failing to secure minimum CGPA of 5.0 shall be condoned by a margin of 0.01 CGPA.
- 11.3 The candidate whose distinction or first division is affected by 0.01 of CGPA shall be eligible for Condonation of 0.01 CGPA on behalf of the Vice-Chancellor for which the candidate has to apply separately.

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